

Snowy Range Instruments - IM-52 Portable Raman Microscope



GENERAL DESCRIPTION:

The IM-52 portable Raman microscopy is built upon the ground breaking Sierra spectroscopic readers. Sierra IM-52 unlocks the power of Raman microscopy, enabling the analysis of the most demanding samples. Its small size allows for easy transfer from the lab to the mobile lab. When your Raman application requires precise spatial imaging and the exact location of the interrogation laser, the Sierra IM-52 portable Raman microscope is the answer.



TECHNICAL DESCRIPTION:

The IM-52 is a portable Raman Microscope using 785 nm excitation and is also available in 1064 nm excitation.

CONTACT INFORMATION

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COST

- \$40,000/system
- \$0/analysis

Tier Selection

Final tier assignment is based on overall product score.

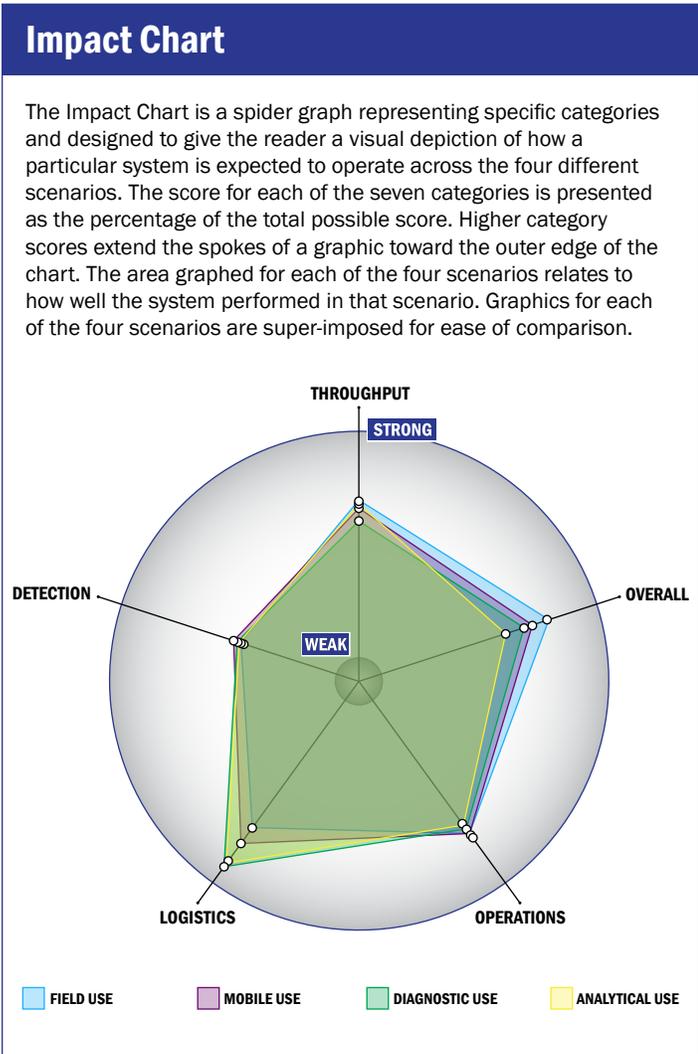
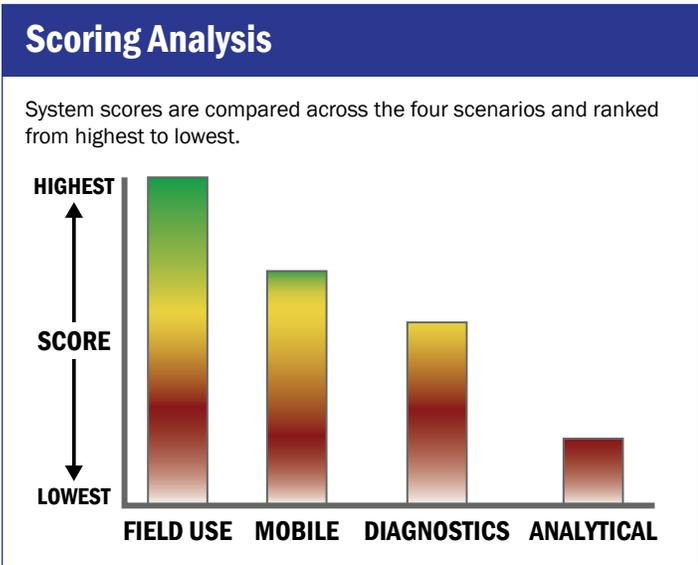
- Top Tier
- ◐ Second Tier
- Third Tier
- ◑ Fourth Tier
- Bottom Tier

RANKINGS

	Biological	Chemical	Radiological
FIELD USE System	N/A	○	N/A
MOBILE Laboratory	N/A	◐	N/A
DIAGNOSTIC Laboratory	N/A	◐	N/A
ANALYTICAL Laboratory	N/A	○	N/A

Survey Source

Vendor Supplied Information



Evaluation Criteria

Throughput:

- 2 minutes or less for detection
- Continuous operation with no defined runs
- 349-96 samples every 2 hours
- The system could be adapted to a fully automated system with some effort
- Device or system is intended for multiple detection assays
- 0-1 solutions, buffer, eluents, and/or reagents
- 0 components
- 5-10 minutes is required for set-up
- 9-12 steps are required for detection

Logistics:

- Very brief (minutes-hours) training and minimal technical skills
- Approximately the size of a toaster
- Between 5 and 25 kg
- Wired connections are available
- System or device has 110V electrical requirement
- 2-4 hours battery life

Operations:

- Can be used from 4 °C to 41 °C
- This system does not require consumable components
- Performance is not influenced by relative humidity
- Greater than 10 years expected life
- The system could be adapted to a fully autonomous system with some effort
- The system software is closed and not available for modification
- The system hardware is closed and not available for modification

Detection:

- Possible the system could receive 510K clearance, no current efforts at this time
- Possible the system could receive FDA approval, no current efforts at this time
- Less than 10 µL
- Superior specificity. System has a false alarm rate approaching zero (~0%)
- 100 ppm-1 ppt
- Possible system could identify aerosolized chemical agent
- System can currently identify liquid chemical agent